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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,564	08/27/2003	Messay Amerga	020673	8247

23696 7590 06/24/2010  
QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
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SAFAIPOUR, BOBBAK

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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06/24/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,564	<b>Applicant(s)</b> AMERGA, MESSAY	
	<b>Examiner</b> BOBBAK SAFAIPOUR	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 03/05/2010 has been entered.

Claims 1-21 are still pending in the present application.

### ***Response to Arguments***

Applicant's argue that amendments to independent claims 1, 13, 14, 17, 20 and 21, where each recite, in part, "a serving cell transceiving gap defined as a duration for searching outside of a serving cell" to more clearly recite Applicant's claimed element of the "transceiving gap" as being time-based (i.e., "duration") rather than the Office Action's applied interpretation of the "transceiving gap" as being frequency-based (i.e., "frequency bands ... are removed from the downloaded schedule") are not taught in Amerga or Bamburak.

The Examiner respectfully disagrees. Amerga clearly discloses different options for performing a frequency scan. Option 1 discloses a that a *time-consuming* full search may be made on many frequencies at which a system is not found. In the worst case all 300 frequencies (see figure 3) will have the *maximum amount of search time spent on them*. (paragraph 39) Option 2 may provide a faster scan than option 1, since many frequencies will not exceed the

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threshold and thus the *time-consuming full search* can be avoided for those frequencies.

(paragraph 47) Option 3 may provide a faster scan than either option 1 or 2. Option 3 *scan time* may equal option 2 if full search is performed on every candidate in the candidate list and the threshold for adding to the list in option 3 is the same as the threshold for full search in option 2.

(paragraph 54)

The simple fact remains that the claims only broadly recite the transceiving gap as being timed based. It has been shown the transceiving gap being timed based is taught in Amerga. If the Applicant intends to differentiate time-based (i.e., “duration”) of the present application and the scan time of Amerga, then such differences should be made explicit in the claims. As a result, the argued features are written such that they read upon the cited references; therefore, the previous rejection still applies.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Amerga et al** (hereinafter “**Amerga**”; US 2003/0231605) in view of **Bamburak et al.** (US 2004/0219915 **A1**; hereinafter **Bamburak**).

Consider **claim 1**, Amerga discloses an apparatus, comprising: a search scheduler for scheduling a search (figure 4; paragraph 36; frequency scan using a full search of all frequencies) based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted.

In related art, Bamburak discloses generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell (read as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search

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schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 13**, Amerga discloses a first Integrated Circuit (IC), responsive to a frequency switch signal generated in a second IC, the second IC comprising: a search scheduler (figure 4; paragraph 36; frequency scan using a full search of all frequencies) for scheduling a search based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system) and a first IC comprising: a frequency synthesizer to receive the frequency switch signal from the second IC and to generate an output signal, the frequency of the output signal changing from a first frequency to a second frequency in response to the frequency switch signal (paragraphs 30-39).

Amerga fails to specifically disclose generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted.

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In related art, Bamburak discloses generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell (read as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 14**, Amerga discloses a wireless communication device, comprising: a search scheduler for scheduling a search (figure 4; paragraph 36; frequency scan using a full search of all frequencies) based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell and a

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frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted.

In related art, Bamburak discloses generating a frequency switch blocking signal to override opening the serving cell transceiving gap for searching outside of the serving cell (read as undesirable or prohibited SOC(s) or SID(s) or if the user enters an override command) and a frequency controller for generating frequency switch commands, receiving the frequency switch blocking signal, and suppressing the generation of frequency switch commands when the frequency switch blocking signal is asserted. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 17**, Amerga discloses a method of searching in the presence of frequency gaps, comprising: a search scheduler (figure 4; paragraph 36; frequency scan using a full search of all frequencies) for scheduling a search based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell. (figure 4; paragraphs 36-38; the



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existence or location of neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell.

In related art, Bamburak discloses suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 20**, Amerga discloses an apparatus, comprising: means for (read as mobile station) scheduling a search (figure 4; paragraph 36; frequency scan using a full search of all frequencies) based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose means for suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell.

In related art, Bamburak discloses means for (read as communication device) suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 21**, Amerga discloses processor readable media encoded with software operable to perform the following steps: scheduling a search (figure 4; paragraph 36; frequency scan using a full search of all frequencies) based at least in part on a serving cell transceiving gap defined as a duration for searching outside of a serving cell. (figure 4; paragraphs 36-38; the existence or location of neighboring systems can be communicated to the mobile station from the located system)

Amerga fails to specifically disclose suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell.

In related art, Bamburak discloses suppressing the generation of frequency switch during the scheduled search to override opening the serving cell transceiving gap for searching outside of the serving cell. (paragraph 27; figure 5 and paragraph 33; figure 9; A search schedule is downloaded using a master search schedule. When downloading the search schedule, frequency bands previously searched are removed from the downloaded schedule to avoid searching bands that have already been searched.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bamburak into the teachings of Amerga to locate a preferable wireless service provider in a multi service provider environment using a frequency band search schedule.

Consider **claim 2**, and **as applied to claim 1 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein a gap manager for indicating when a frequency switch is to occur, and wherein the search scheduler schedules the search during a period of time without a frequency switch as indicated by the gap manager. (Bamburak: paragraph 27; figure 4 and paragraph 33; figure 9)

Consider **claim 3**, and **as applied to claim 1 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler comprises a timer, the expiration of

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which indicates a search is to be scheduled. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 4**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search without asserting the frequency switch blocking signal prior to the timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 5**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the timer resets upon the completion of a scheduled search. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39; performing searches at new frequencies)

Consider **claim 6**, and **as applied to claim 3 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search and asserts the frequency switch blocking signal subsequent to the timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 7**, and **as applied to claim 1 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler asserts the frequency switch blocking signal during the scheduled search. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 8**, and **as applied to claim 2 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a plurality of search types. (abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 9**, and **as applied to claim 81 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules one or more of the plurality of search types (Amerga: abstract; figures 2, 4-9; paragraphs 36-39) in response to the frequency switch indicator received from the gap manager. (Bamburak: paragraph 27; figure 4 and paragraph 33; figure 9)

Consider **claim 10**, and **as applied to claim 8 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler comprises a plurality of timers corresponding to one or more of the plurality of search types, the expiration of each timer indicating a search of the respective search type is to be scheduled. (abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 11**, and **as applied to claim 10 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the search scheduler schedules a search corresponding to one of the plurality of search types and asserts the frequency switch blocking signal subsequent to the respective timer expiration. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 12**, and **as applied to claim 8 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein the plurality of search types comprises one or more of a list search, a W-CDMA step one search, or a W-CDMA step two search (Amerga: abstract)

Consider **claim 15**, and **as applied to claim 14 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein frequency synthesizer to receive the frequency switch commands and to generate an output signal, the frequency of the output signal changing from a first frequency to a second frequency in response to the frequency switch commands. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 16**, and **as applied to claim 14 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein a searcher for searching in accordance with the scheduled search and for indicating to the search scheduler when the scheduled search is complete. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 18**, and **as applied to claim 17 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein determining future frequency switches; and wherein the search is scheduled during a time period in which no future frequency switches are determined. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

Consider **claim 19**, and **as applied to claim 18 above**, Amerga, as modified by Steudle, discloses the claimed invention wherein timing the duration between searches; and scheduling

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searches without suppressing frequency switches prior to the timed duration reaching a pre-determined maximum. (Amerga: abstract; figures 2, 4-9; paragraphs 36-39)

### ***Conclusion***

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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P.O. Box 1450  
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**Hand-delivered responses** should be brought to

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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Bobbak Safaipoor  
B.S./bs

June 18, 2010

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618